

# SONTENES





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This document is the result of a study conducted by the South Carolina Forestry Commission (SCFC) on the wood products markets in the European Union and United Kingdom, over the first half of 2020. Its goal is to help the Southern U.S. industry (producers, manufacturers, traders, and policymakers) in preparing for the opportunities such markets may offer, by compiling relevant information on the current economics, trade, and resources for exporters. This report should be used as a reference, and in conjunction with primary market information. SCFC will not be held liable for misuse or misinterpretation of information within this document.















# INTRODUCTION

The European Union (EU) is a major consumer of timber products; it accounts for approximately 5% of the world's forests, has a growing stock of more than 883 billion cubic feet, and produces almost 18 billion cubic feet of round wood per year. Despite the signs of decline during the last decade, the European market remains a significant importer of forest products, accounting for more than a third of the value of global primary wood and paper products imported in 2018.

On average, forest products imports into the EU amounted to \$156.5 billion per year between 2009 and 2018. Germany, France, the United Kingdom (U.K.), the Netherlands and Italy are the top EU importers, accounting for almost 60% of the region's import, which consists mainly of paper, solid wood, and wood furniture products. Nearly two-thirds of the solid wood imports in 2018 corresponded to logs, lumber, doors & windows, fuelwood (wood pellets) and plywood. The European market represented 15% of all forest products exports from the U.S. During the last five years, U.S. forest product exports to Europe were \$5 billion on average, and the European Union represented almost two-thirds of this amount.

This report summarizes a study conducted by the South Carolina Forestry Commission on the EU forest products market during the first half of 2020. It is intended to help the U.S. southern forest products sector (producers, manufacturers, traders and policymakers) examine and prepare for the opportunities this market may offer by providing them with detailed information on demand, trade and resources available for exporters.

The Senned, the home of the Welsh Parliament in Cardiff, Wales, features a breathtaking undulating roof made of western red cedar.

## **ECONOMIC ACTIVITY**

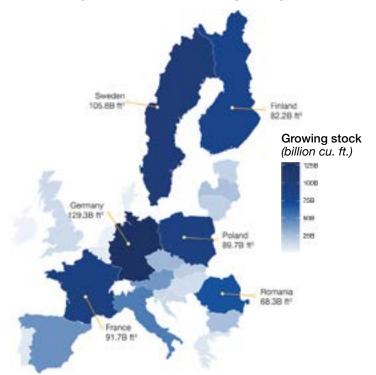
#### Forest resource, production and consumption

The European Union accounts for almost 5% of the world's forest. More than 41% of its area is covered by forests and wooded lands – over 450 million acres in 2018 – 75% of which is available for wood supply [1]. The largest forest areas are located in Sweden (17.1%), Finland (12.9%) and Spain (15.5%).

Europe is one of the few regions in the world with an increasing forest cover [1]: as *The Economist* writes, "between 1990 and 2015, EU countries reforested an area the size of Portugal" [2]. The growing stock in forests and wooded lands in EU member states totaled 907.6 billion ft³ in 2015 (Figure 1), where Germany, Sweden and France accounted for the most significant shares (14.3%, 11.7% and 10.1% respectively) [1].

Consequently, the output of logs is also the highest in Sweden, Germany and France: \$4.8, \$4.6 and \$3.0 billion in 2017, respectively. The total roundwood production in the EU amounted to 17.3 billion ft<sup>3</sup> in 2018, 21% higher than in 2000. Almost a quarter of this production is used for fuelwood (23% in 2018); the rest was used for lumber, engineered panels, pulp and paper manufacturing [3].

Figure 1. 2015 EU's growing stock, by country (billion cubic feet, all species)



#### Forest products trade

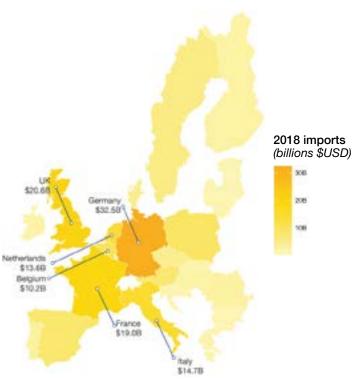
The relative importance of Europe's forest products imports gradually declined during the second half of the twentieth century due to much faster growth in other regions, especially East Asia [4]. Nevertheless, the European market remains a significant consumer of forest products, accounting for more than a third (38%) of global forest products import in 2018 [5].

A noteworthy characteristic of European trade in forest products is that a large proportion takes place between its members [4]. For example, 77% of imports reported by EU members from 2009 through 2018 came from other countries in the European Union.

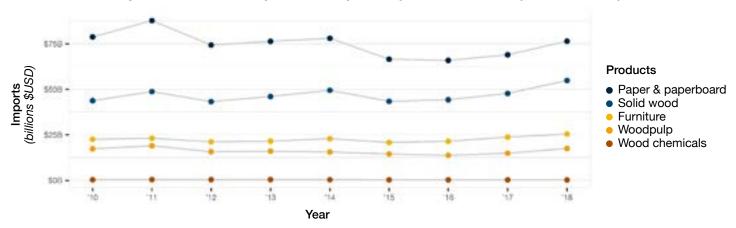
Contrary to the fast growth observed over the '80s, '90s and up to 2008, forest products imports into the EU have shown signs of decline during the last decade, mainly in paper and paperboard products. Growth in other sectors, such as solid wood products, has slowed but remains positive.

On average, forest products imports into the EU amounted to \$156.5 billion per year between 2009 and 2018. In 2018, the total import was \$175 billion and consisted mainly of paper & paperboard (44%, Figure 3), solid wood products (31%) and wood furniture (16%). Woodpulp imports represented 9% of this total, whereas

Figure 2. 2018 EU's forest products import, by country (billions \$USD)



EU's forest products imports, by sector, 2010-18 (millions \$USD)



those of wood chemicals were less than 1%. Of the 28 members, five countries accounted for almost 60% of all forest products imports into the EU over the last five years (Figure 2): Germany (19%), France (12%), the U.K. (12%), the Netherlands (8%) and Italy (8%). Overall, most of the forest products imported by countries in the EU come from other member nations.

For instance, in 2018, approximately 76% of all imports were sourced from within the union. The top four suppliers - Germany, Poland, Sweden and Italy - accounted for 16%, 7%, 7% and 6%, respectively, for a combined 36% in that year. China, the U.S. and Brazil were the top non-EU suppliers by accounting for 5.3%, 2.8% and 1.9% of all imports in 2018, respectively.

#### Paper & paperboard

The paper and paperboard sector is the primary driver of forest products import in the European Union. In 2018, import of paper and paperboard products amounted to \$76.6 billion, which represented almost 44% of the EU's forest products import (Figure 3). It also represented an increase of 10.5% from 2017. The top four importers

Germany, France, the U.K. and the Netherlands

accounted for 19%, 13%, 11% and 8% of the market's import in 2018, respectively, for a combined 51% (Table 1). The top 5 suppliers, which accounted for half the value of the EU's imports of paper and paperboard products between 2014 and 2018, were, in order of importance, Germany, Sweden, Italy, France and Finland. Germany alone accounted for 21% of the sector's total in 2018. At least 22 products are reportedly traded in this sector, the most frequent being paper and paperboard coated with kaolin, packing containers and paper for printing and writing.

#### Solid wood products

Trade of solid wood products involves commodities such as logs, lumber, veneers, fuelwood and engineered products like fiberboard, particleboard and plywood, all of which are included in chapter 44 of the U.S. harmonized tariff schedule [6].

Most of the EU's imports of solid wood products come from within the region itself: 71% over the last five years, the top suppliers being in Germany, Poland, Sweden and Finland. China, the United States and Brazil are currently the top three non-EU suppliers. Almost two-thirds of the

Table 1. EU's forest products imports in 2018 Top 5 importers per sector (millions \$USD and percentages)

	Wood Chemicals			od Chemicals Solid Wood Products				dpulp		Paper and	Paperboa	Wood Furniture					
Rank	Country	Export		Export		Country	Export		Country	Expo	ort	Country	Export		Country	Expo	ort
		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		
1	Finland	71	31	Germany	8,707	16	Germany	4,533	26	Germany	13,863	18	Germany	5,365	21		
2	Sweden	50	22	UK	7,654	14	Italy	2,758	16	France	8,770	11	UK	4,095	16		
3	Germany	19	8	Italy	4,872	9	Netherlands	1,744	10	UK	7,971	10	France	3,811	15		
4	UK	18	8	France	4,667	9	France	1,731	10	Italy	6,227	8	Netherlands	2,394	9		
5	Austria	17	8	Netherlands	3,976	7	Spain	1,045	6	Netherlands	5,470	7	Austria	1,194	5		

UK, DNK, BEL UK, ITA, DEU, ESP Solid Wood Products \$1,58B 349 Casks, barrels, etc. UK, IRL, ESP, FRA DEU, ESP, ITA, PRIT Uncoated Kraft Pape ITA, ESP, DEU, UK, NLD Paper & Paperboard \$1.548 839 Cellulose Wadding Webs UK, ITA, DEU, NLD Paper/Paperboard w/Kaolir NLD, UK, BEL, ESP Chem. Woodpulp Soda/Suffate ITA, DEU, POL, NLD 2019 US Exports \$4.6 B Woodpulp \$1.25B 27 Chem. Woodpulp, dissolv, grades DEU, BEL, CZE to the EU ITA, NLD, DEU, ESP. FIN. SWE, FRA Wood Chemicals \$140M SWE, NLD Turpentine and other Terpenic Oils FRA, UK, CZE Furniture Parts UK, DEU, FRA, ITA \$86M Furniture UK, FRA, ESP, ITA Wood Si NLD, DEU, UK, ITA Prefatricated Buildings FIN: Finland FRA: France IRL: Ireland ITA: Italy NLD: Netherlands BEL: Belgium CZE: Czechia DEU: Germany DNK: Denmark ESP: Spain PRT: Portugal POL: Poland SWE: Sweden UK: United Kingdom

Figure 4. 2019 U.S. forest products exports to the EU, by sector: top commodities and partners

solid wood imports in 2018 corresponded to logs, lumber, doors & windows, fuelwood (wood pellets) and plywood. Half of the lumber imported by the EU in 2018 was of fir and spruce species, about 22% of pines and 8% of oaks. The top destinations for imported lumber in the EU are the United Kingdom, Germany, Italy and the Netherlands. Spruce, fir and pine are also the main species found in log imports, whose top markets are Austria, Sweden, Germany and Finland.

The import of fuelwood amounted to \$5 billion in 2018, which represented 10% of the EU's solid wood products import that year. Almost two-thirds (64%) of this amount corresponded to wood pellets, 11% to wood chips from coniferous species and 7% to sawdust and wood waste or scrap. The U.K. accounted for almost 30% of the fuelwood imported in 2018, Denmark for 14% and Italy for 12%. The United States is the top supplier of fuelwood for the EU: it accounted for almost a quarter of all imports in 2018. Approximately 90% of the supply of fiber and particleboard imports for the EU comes from other EU countries. On plywood, the distribution of imports between EU and non-EU members is about 50/50, where the top non-EU suppliers are Russia, Brazil and China.

#### **Furniture**

For more than three decades, the import of furniture has remained third in importance for the EU forest products market. In 2018, it accounted for 15% (\$25.4 billion) of the market's value, and like the other two major sectors, it has experienced continuous growth over the last four to five years.

Also similar to paper and solid wood products, most of the EU's import of furniture comes from EU members: 70% in 2018. Overall, almost half of the furniture imports came from Poland, China and Germany that year and were mainly destined to the markets in Germany, the U.K., France and the Netherlands. Most imports from non-EU members come from low-labor-cost countries [7]: in 2018, China accounted for almost half of these; Vietnam and Indonesia for 12% and 5%, respectively. The largest segment of furniture import is "Other Wood Furniture" (harmonized tariff schedule code 940360) [8], which includes a varied mix of items and parts, sometimes made with materials not available in the EU [7]. Upholstered seats with wooden frames are the second segment in importance, accounting for a quarter of furniture import in 2018. Other key sectors are bedroom and kitchen furniture.

#### Woodpulp

The import of woodpulp amounted to \$17.5 billion in 2018, which represented 10% of the total forest products imports that year and an increase of \$2.6 billion from 2017. In contrast to the three major sectors previously described, the distribution of woodpulp imports is more balanced between EU and non-EU countries: 59% versus 41% in the past five years. In 2018, almost half of the EU's woodpulp imports came from suppliers in Brazil, Sweden, Finland and the U.S. The top EU destinations for pulp imports are Germany (the largest EU paper producer), Italy, the Netherlands and France. Almost three-quarters of imports correspond to non-dissolving grade chemical woodpulp (soda/sulfate)-most of which is consumed in paper production [9] – and about 14% to recovered paper & paperboard. In the EU, recovered paper and paperboard are classified according to the "European Standard List of Recovered Paper and Board Grades EN 643."

#### Exports from the United States into the EU

Over the last two decades, the top three markets for U.S. forest products exports have been North America, Asia and Europe. In 2019, this industry exported a total of \$33.7 billion, of which Canada and Mexico represented 42%, Asia 33% and Europe 15%. Central & South America, Africa and Oceania accounted for the remaining 11%. During the last five years, U.S. forest products exports to European Union were \$4.4 billion on average (Figure 4). Most of the forest products exports from the U.S. into the EU are woodpulp, paper and paperboard and solid wood products: 27%, 33% and 34% respectively, for a combined 97% in 2019.

Overall, the top EU destinations for U.S. exports in 2019 were the U.K., Italy, Germany, the Netherlands and Spain. Almost 25% of exports came from the port of Savannah; 15% from Norfolk-Newport News; 9% from Charleston; and 7% from Mobile.



## **KEY MARKETS**

#### Germany ===

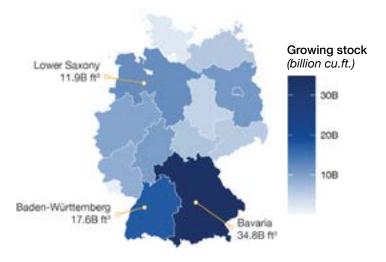
FOREST RESOURCE, PRODUCTION AND CONSUMPTION [10] More than a third of Germany's area is forested, approximately 28.2 million acres, 48% of which is privately owned. About half of these private forests are shared by holdings with less than 50 acres. Only 13% of the total forest

holdings with less than 50 acres. Only 13% of the total forest area is shared by holdings with more than 2,500 acres.

In general, forests are located in areas where climate, soil or terrain conditions are less suitable for agriculture or settlement. On average, forests occupy between 11 and 29% of the states' total area. Examples of the states with larger forested areas are Rhineland-Palatinate (42%), Hesse (42%) and Saarland (40%), among others. Of the 28.2 million acres of forests in Germany, 95% is considered timberland. Spruce, pine, beech and oak are the most common species groups, as they account for 73% of the timberland. Germany holds a growing stock of 130.7 billion ft<sup>3</sup>, which ranks the country at the top of the EU (Figure 5), and its growth-to-drain ratio is 1.24 (2010 estimate). Softwoods represent 61% of the stock, and hardwoods account for the other 39%. In particular, spruce trees account for 33% of the total timber stock in Germany, and pine for 21%. The top hardwood species, beech and oak, account for 17% and 10%, respectively.

In 2018, Germany was the second-largest EU producer of roundwood, with a total harvest of 2.5 billion ft<sup>3</sup>. Industrial roundwood represented 70% of the country's roundwood production this year, and fuelwood accounted for the other 30%. This is in contrast to other major EU producers, such as Sweden and Finland, where industrial roundwood represented 90% and fuelwood 10% only. Germany also

Figure 5. Germany's growing stock, by state, 2012 (billion cubic feet, all species)



plays a key role in the manufacture of primary forest products. Between 2014 and 2018, German lumber represented 21% of the EU's total production. Similar to panels, Germany was the top EU producer by accounting for 24% of the union's output over that period, mainly in the form of fiberboard and particleboard. Germany's plywood and veneer industries are relatively small compared to those of other EU members.

#### Trade [11]

Overall, Germany is a net exporter of forest products: between 2014 and 2018, exports from this country surpassed imports by \$3.2 billion per year on average. This gap widens in favor of exports of paper and paperboard products, which showed a positive balance of \$6.8 billion in 2018. In other sectors such as solid wood and furniture, imports show an advantage that ranges from 1% to 5% per year. On the other hand, Germany is also a net importer of

**Table 2.** German's forest products imports in 2018

Top 5 partners per sector, by value (millions \$USD and percentages)

	Wood Chemicals			Solid Wood Products			Wood	pulp		Paper and P	Wood Furniture				
Rank	Country	Export		Country	Export		Country	Export		Country	Export		Country	Export	
		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%
1	Sweden	4.4	23	Poland	1,432	16	Brazil	801	18	Sweden	1,815	13	Poland	2,179	41
2	Finland	3.3	17	Austria	1,156	13	Sweden	706	16	Finland	1,798	13	China	535	10
3	Austria	2.2	12	Czechia	813	9	Finland	484	11	Austria	1,476	11	Italy	268	5
4	USA	1.6	9	China	599	7	Netherlands	336	7	Poland	1,381	10	Romania	200	4
5	China	1.5	8	Russia	462	5	Portugal	286	6	France	1,194	9	Slovakia	167	3
А	frica	Asia		Australia & Ocea	nia		Central/South	America	a & The	e Caribbean	E	Europ	e   1	North Ame	erica

woodpulp: the total import of these commodities exceeded exports by \$3.0 billion/year from 2014 through 2018.

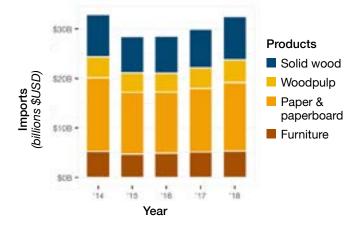
Germany's total forest products import amounted to \$32.5 billion in 2018, which represented an increase of 9% from 2017 and followed the same trend of growth observed for the rest of the EU over the past four years.

As indicated earlier, Germany is the top destination for forest products imports in the EU: in 2018, this nation's import represented almost 19% of the region's total. Nearly 78% of the forest products imported into Germany come from other EU members, and almost half come from Poland, Austria, Sweden and Finland (Table 2).

Germany's top non-EU suppliers are located in China and Brazil. Paper and paperboard products accounted for 43% of Germany's forest products import in 2018 (Figure 6), and almost half of this amount corresponded to paper and paperboard coated with kaolin, paper for writing & printing and packing containers.

Solid wood follows in importance by accounting for 27% of the country's import, half of which corresponded to lumber, builder's joinery, plywood and particleboard.

Figure 6. Germany's forest products imports, 2014-18 (billions \$USD)

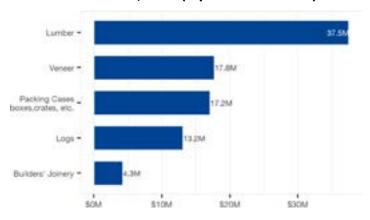


Furniture and woodpulp are the other two key imports into Germany; they represented 16% and 14% of the country's total in 2018.

#### U.S. Forest Products in Germany [12]

Over the last six years, Germany has been the third most important destination for U.S. forest products in the EU, accounting for 13% of exports over this period. In 2019, the U.S. sent \$579 million in forestry commodities to Germany, nearly half from the states of Georgia, South and North Carolina and Florida. Woodpulp represented approximately 44% of this amount, whereas paper & paperboard and solid wood products accounted for 38% and 16.5%, respectively. Close to 40% of solid wood products exports in 2019 consisted of lumber (Figure 7). Other commodities such as veneers, pallets and logs accounted for 19%, 18% and 14%, respectively. More than 85% of the U.S. lumber shipped to Germany consisted of hardwood species (e.g., oak, poplar), 11% of pines and 4% of other species. Nearly 93% of the logs sent to Germany were of hardwood species.

Figure 7. U.S. solid wood products exports to German, 2019 (top 5 commodities)





#### The United Kingdom

Forest Resource, Production and Consumption [13] Timberlands represent 13% of the total land area in the United Kingdom, approximately 7.9 million acres (2019), which is an increase of 9% since 1998. Of this total, 46% is in Scotland, 41% in England, 10% in Wales and 4% in Northern Ireland. About 73% of the timberland in the U.K. is privately owned.

The total growing stock in Great Britain was estimated at 21.2 billion ft³ in 2018 (Figure 8); 12.5 billion ft³ corresponds to conifers and 8.6 billion ft³ to deciduous species. Sitka spruce accounts for nearly half (51%) of the coniferous growing stock, Scots pine for 15%, Larches for 10% and other species for the remaining 24%. Of the total volume of deciduous growing stock, oak, ash and beech account for its majority: 28%, 16% and 12% in 2018, respectively. Overall, the last estimation of the country's growth-to-drain ratio was 1.98 (2010).

The U.K. harvested 12.2 million green tons of roundwood in 2018. Softwoods represented 93% of this amount (11.4 million green tons), and hardwoods accounted for the other 7% (0.8 million green tons). The private sector accounted for 60% of the softwood production and 90% of the hardwood production in 2018.

The country's primary wood industry processed a total of 11.6 million green tons of roundwood in 2018, following the same breakdown of harvesting (93% softwoods and 7% hardwoods). Of the 11.6 million green tons, sawmills processed 6.5 million, which represented a 56%. Woodbased panels and pulp & paper manufacturers processed 10.3% and 4.3%, respectively. About 22% of the total

Figure 8. U.K.'s growing stock, by state, 2019 (billion cubic feet, all species)



volume was used as wood fuel. Other applications such as fencing, shavings and log exports accounted for the remaining 7%.

In 2018, U.K. sawmills produced 130.7 million ft³ of lumber, mostly (99%) from softwoods. There were 157 active sawmills in the U.K. in 2018, most of them in England (83) and Scotland (52). The majority of sawmills process softwoods only (104). In 2018, 36% of the softwood lumber produced by large sawmills was used for fencing, 33% in construction, 24% for pallet/packaging manufacturing, and 7% in other markets. About three quarters (76%) of wood-based panels produced in 2018 were particleboard (including OSB). The additional 24% was fiberboard (including MDF).

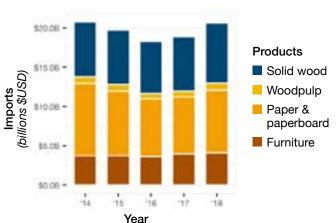
#### Trade [11]

The U.K. is a net importer of forest products, and these have consistently exceeded exports for years. In 2018, the value of imports was four times that of exports. The contrast between imports and exports is particularly evident in the trade of solid wood products (\$8 billion exports vs. \$1 billion imports), paper & paperboard products (\$8 billion vs. \$3 billion), wood furniture (\$4 billion vs. \$1 billion) and wood chemicals (\$18 million vs. \$1 million).

The trade of woodpulp tends to show smaller differences in favor of exports. For instance, in 2018, the export of woodpulp amounted to \$897 million, whereas import was \$771 million. In 2018, forest products import to the U.K. amounted to \$20.6 billion (Figure 9), which represented almost 12% of the EU's total that year, the highest amount in the region after Germany.

At least 60% of the country's imports that year came from other EU countries (Table 3). Overall, the top five partners in 2018 accounted for almost half of its imports: China

Figure 9. U.K.'s forest products imports, 2014-18 (billions \$USD)



**Table 3.** United Kingdom's forest products imports in 2018

Top 5 partners per sector, by value (millions \$USD and percentages)

	Wood Chemicals			Solid Wood	Produc	Wood	pulp		Paper and F	Wood Furniture					
Rank	Country	Exp	ort	Country	Export		Country	Export		Country	Export		Country	Export	
		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%
1	Spain	9.8	54	USA	1,169	15	Sweden	245	27	Germany	1,405	18	China	1,296	32
2	USA	3.5	20	Sweden	865	11	Brazil	183	20	Sweden	792	10	Poland	467	11
3	Netherlands	1.1	6	China	834	11	Austria	89	10	China	788	10	Vietnam	341	8
4	India	<1	5	Latvia	681	9	Netherlands	63	7	Finland	772	10	Italy	332	8
5	China	<1	5	Germany	454	6	Finland	57	6	France	597	7	Germany	233	6
А	frica	Australia & Oceania			Central/South America & Th			he Caribbean Europ			e North America				

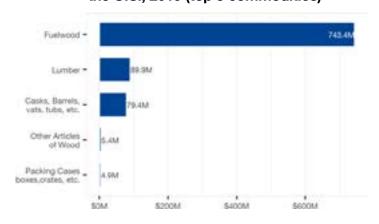
(14%), Germany (10%), Sweden (9%), U.S.A (9%) and Finland (6%). Paper & paperboard products represented 38% of all forest products import into the U.K. in 2018. Solid wood products accounted for 37%, whereas furniture and woodpulp for 20% and 4.35%, respectively. Those of wood chemicals were less than 1%.

The U.K. imported \$7.6 billion in solid wood products in 2018, following the positive trend observed over the last decade, and leading to an increase of 145% since 2009. In the previous five years, the top commodities imported by the country within this sector were lumber, fuelwood, builder's joinery and plywood, combining for 72% of the sector's total. Lumber alone accounted for 30% of solid wood products import, most of which consisted of softwoods: firs and spruces (44%) and pines (22%). The import of fuelwood represents 18% of the sector's total. It consists mainly of wood pellets (64%) and wood chips from coniferous trees (11%). The top builder's joinery products imported into the U.K. are doors & door frames, windows & window frames and flooring. Plywood accounts for 10% of the country's solid wood products import. Almost 42% of these are hardwood plywood (at least one outer ply), and 22% are softwood plywood (both outer plies); tropical species account for 14% (at least one outer ply).

#### U.S. Forest Products in the U.K. [12]

The U.K. is the leading destination for U.S. forest products exports to the European Union. In 2019, exports to this country amounted to \$1.3 billion, which represented 28% of all U.S. exports to the region. Almost three-quarters (72%) of the U.S. exports to the U.K. were solid wood products in 2019. Paper and paperboard followed in importance by accounting for 25% of the value traded. Furniture, woodpulp and wood chemicals represented approximately 3%.

Figure 10. U.K.'s solid wood products imports from the U.S., 2019 (top 5 commodities)



Fuelwood and wood pellets, in particular, represent most of the solid wood products sold to the U.K. (80% in 2019, Figure 10). Lumber was the second-most traded solid wood commodity with the U.K. (10% in 2019), half of which was of oak, 19% poplar & aspen, and 22% were other hardwood species. Pine species accounted for 5% of the lumber sold to the U.K. in 2019.



#### Spain ===

Forest Resource, Production and Consumption [14] Forests and other wooded lands cover 55% of Spain's territory, amounting to 68.9 million acres in 2017. Of the 45.7 million acres covered just by forests, 55% is constituted of deciduous trees, 37% by conifers, and 7% by areas with mixed species. Approximately 72% of the forest lands in Spain are privately owned. The other 28% is administered by local or national government agencies.

Spain's high-level political divisions consist of 17 autonomous communities and two autonomous cities, which in turn are organized in 50 provinces. Seven provinces have more than 50% of their area covered by forests: Coruña, Bizkaia, Gipuzkoa, Barcelona and Girona in the north, and Caceres and Huelva in the west of the country. Spain's growing stock amounted to 38.8 billion cubic feet in 2017 (Figure 11), and its growth-to-drain ratio was 1.81 in 2010. The provinces with the highest ratio of commercial timber per acre (1786 – 2701 ft<sup>3</sup>/acre), are all located across the country's northern region. Five species account for almost half (51%) of the total growing stock: Pinus pinaster, Pinus sylvestris, Pinus halepensis, Eucalyptus globulus and Fagus sylvatica. P. pinaster and P. sylvestris represent 14% of the country's total growing stock each. F. sylvatica (European beach), the top hardwood species, accounts for 7%.

In 2017, Spain's total production of roundwood amounted to 625 million cubic feet: 339 million ft<sup>3</sup> came from the harvest of coniferous forests, and 286 million ft<sup>3</sup> consisted of deciduous species. *P. radiata*, *P. pinaster* and *P. sylvestris* accounted for 37.5%, 35.4% and 14.6% of the production of coniferous roundwood, representing a combined 87.5%. Around 86% of the harvest of deciduous trees consisted of species of eucalyptus. Overall, a third (34%) of the timber

harvested in Spain is used for woodpulp production, 30% for lumber, and 18% for panels. Other products such as veneers, posts and firewood account for the remaining 18%. Almost half (49%) of the coniferous roundwood produced by the country is used for lumber, 20% in panels manufacturing, and 14% for firewood. Woodpulp production uses 56% of the harvest of deciduous trees, whereas panels and wood fuel account for 16% and 15% of its use, respectively.

#### Trade [11]

Spain's import of forest products totaled \$7.9 billion in 2018, an increase of \$848 million from 2107, and the third year in a row with year-over-year gains (Figure 12). Over the last decade, imports from EU countries represented almost 80% of the country's total for forest products.

In 2018, Spain ranked eighth among EU countries for forest products imports, accounting for 5% of the region's total. Almost half (49%) of Spain's imports come from four trade partners: France, Portugal, Germany and Italy (17%, 12%, 11% and 9% respectively). China, the U.S. and Brazil were Spain's top non-EU suppliers in 2018, accounting for 6%, 5% and 3%, respectively (Table 4).

Paper and paperboard products represented more than half (56%) of Spain's import of forest commodities in the last five years. Solid wood products followed in importance, representing 20%, whereas those of woodpulp and furniture amounted to 13% and 11% respectively. Imports of wood chemicals were less than 1%. Over this period, the import of lumber totaled \$2 billion, which represented 21% of all solid wood products import. Those of fiberboard and builder's joinery were 9% each. Almost half (44%) of the lumber imported by Spain from 2014 through 2018 was of

Figure 11. Spain's growing stock, by autonomous region, 2017 (billion cubic feet, all species)

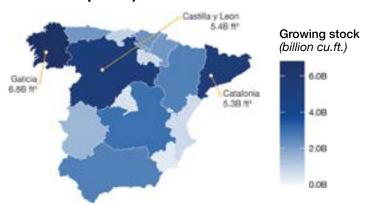
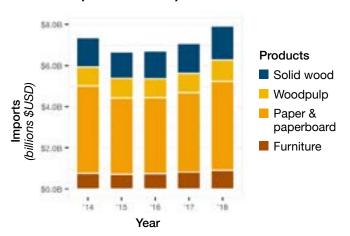


Figure 12. Spain's forest products imports, 2014-18 (billions \$USD)



**Table 4.** Spain's forest products imports in 2018

Top 5 partners per sector, by value (millions \$USD and percentages)

	Wood Ch	emicals	S	Solid Wood	Wood	dpulp		Paper and Pa	ard	Wood Furniture					
Rank	Country	Export		Country	Export		Country	Export		Country	Export		Country	Export	
		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%
1	Portugal	2.8	31	France	331	20	Brazil	172	16	France	726	17	China	146	16
2	Germany	1.4	15	Portugal	250	15	France	165	16	Germany	597	14	Italy	119	13
3	Brazil	1.3	14	Germany	173	10	Portugal	151	14	Italy	550	13	Portugal	114	13
4	China	1.1	12	China	136	8	Sweden	145	14	Finland	511	12	Poland	114	12
5	Mexico	<1	7	USA	92	6	Finland	102	10	Portugal	451	10	France	91	10
A	Africa Asia Aus			Australia & Ocea	nia		Central/South America &			he Caribbean		Euro	рре	North A	merica

pine species. Oak species accounted for 18%; firs & spruces for 13%.

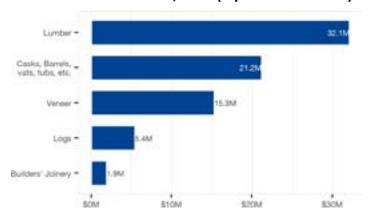
#### U.S. Forest Products in Spain [12]

The value of shipments of U.S. forest products to Spain totaled \$325 million in 2019: a decline of \$31 million from 2018, and a change from the positive trend observed over the previous five years.

Spain ranked fifth among the EU markets for U.S. forest products as the country accounted for 7% of the union's import in 2019. This same year, almost half (51%) of U.S. exports came from the states of Georgia (24%), Arkansas (16%) and Alabama (11%). Most of Georgia's exports (90%) consisted of paper and paperboard products, whereas those from Arkansas were mainly woodpulp (99%). A mix of pulp and paper commodities represents 95% of Alabama's exports to Spain, and only 5% corresponded to other goods, including solid wood products.

Overall in 2019, shipments of paper & paperboard products accounted for 42% of U.S. forest products exports to Spain. Woodpulp constituted 32%, solid wood 24%,

Figure 13. Spain's solid wood products imports from the U.S., 2019 (top 5 commodities)



furniture and wood chemicals for a combined 1.5%. U.S. solid wood products exports totaled \$79.3 million in 2019, \$8.9 million below 2018, and \$13.4 million less than in 2017. Lumber accounted for 41% of this sector's export into Spain in 2019 (Figure 13). Casks, barrels and bats represented 27%, veneers 19%, and logs 7%. Other commodities, including builder's joinery, represented 6%.



#### Italy **III**

Forest Resource, Production and Consumption [15], [16] Italian forests and wooded lands cover territories of 22 million acres and 5 million acres, respectively, for a combined total of 27 million acres. Overall, these forested areas represent 35% of the country's total land. In some sections, they cover almost half of their total area. Such is the case of the regions of Trentino-Alto Adige, Liguria,

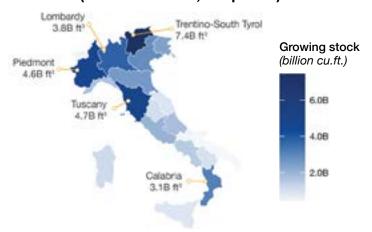
Tuscany, Umbria and Sardinia.

At the moment, forest plantations only account for 247 thousand acres. Most of the Italian's forested areas are privately owned: 63.5% in 2015. Those in public properties represent 32.4%, and there is a 4.1% of the wooded areas yet to be categorized. The largest forest areas are located in the regions of Tuscany in central Italy (2.5 million acres), Piedmont on the country's northwest near the borders with France and Switzerland (2.1 million acres), and Lombardy in northern Italy (1.5 milllion acres).

Out of the 22 million acres composed of forests, 14% are considered pure conifers, 68% pure deciduous, 10% mixed species, and about 8% as yet unidentified. It has been estimated that almost 82% of the total forests are available for harvesting.

The country's growing stock is approximately 49.4 billion cubic feet (Figure 14), 61% of which consists of deciduous trees, and 39% coniferous species. Further, it is found that the most abundant species are beech (8 billion cubic feet), Norway spruce (7.7B ft³), chestnutt (4.7B ft³) and turkey oak (3.2B ft³). Overall, the 2020 estimation of the country's growth-to-drain ratio stood at 2.55. Italy's production of roundwood amounted to 455.6 million cubic feet in 2015: 88.3 million ft³ from coniferous species and 367.3 million ft³ from non-coniferous varieties. Most of this production is used as fuelwood (84%), 8% for the production of lumber

Figure 14. Italy's growing stock, by region, 2015 (billion cubic feet, all species)



and veneers, 5% for pulpwood, and 3% in other industrial applications.

#### Trade [11]

Italy imported \$14.7 billion of forest products in 2018 and ranked fourth among EU members by accounting for 8.5% of the region's total that year (Figure 15). Compared to 2017, the country's exports grew by approximately 15%, and 23% since 2016.

Most of Italy's imports come from within the EU -72% in 2018 – and 28% from other regions (Table 5). The top EU partners – Germany, Austria, France and Sweden – accounted for 42% of Italy's forest products import in 2018: 15%, 13%, 7% and 7%, respectively.

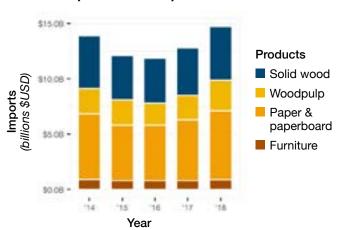
Brazil and the U.S. are Italy's top non-EU suppliers, which accounted for 7% and 5% of the country's imports in 2018, respectively. At least 42% of the nation's forest products imports consist of paper and paperboard products, 33% of solid wood commodities, and 19% of woodpulp. Furniture accounts for less than 6%, and those of wood chemicals do not exceed 1%.

Italy's top suppliers of solid wood products are found in Austria, Germany, France and Poland. Lumber represents almost a third (30%) of the Italian solid wood products imports. Builder's joinery, fuelwood and particleboard represent 13%, 12% and 7%, respectively. More than half (58.5%) of lumber imports are made up of a combination of fir and spruce. Pine and oak species account for 11% and 9%, respectively.

#### U.S. Forest Products in Italy [12]

Shipments U.S. forest products to Italy amounted to \$667 million in 2019, which represented 15% of the exports into the region. Italy is also the top destination for U.S. woodpulp (26% of the EU's total), and second for paper

Figure 15. Italy's forest products imports, 2014-18 (billions \$USD)



**Table 5.** Italy's forest products imports in 2018

Top 5 partners per sector, by value (millions \$USD and percentages)

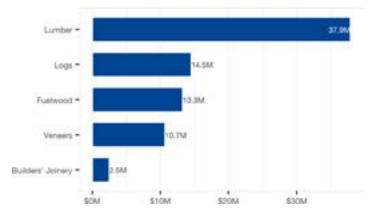
	Wood Ch	Wood Chemicals			Solid Wood Products					Paper and Pa	<b>Wood Furniture</b>				
Rank	Country	Exp	ort	Country	Export		Country	Export		Country	Export		Country	Export	
		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%		Millions \$USD	%
1	Austria	2	34	Austria	1,266	26	Brazil	848	31	Germany	1,452	23	Poland	137	16
2	France	2	22	Germany	465	10	USA	343	12	Sweden	643	10	China	125	14
3	Netherlands	1	12	France	287	6	Sweden	282	10	France	593	10	Germany	100	11
4	Germany	1	11	Poland	267	5	Uruguay	272	10	Austria	491	8	Romania	91	10
5	Finland	1	9	Slovenia	239	5	Finland	222	8	USA	319	5	France	69	8
А	africa /		Australia & Oceania			Central/South America & The			The Caribbean Eur			ope North America			

and paperboard products (17%). Moreover, almost half (48.2%) of the U.S.' exports to Italy consists of woodpulp.

Paper & paperboard and solid wood represent 38% and 12.5%, respectively. Furniture and wood chemicals account for less than 1.5%. Overall, the top U.S. suppliers are in the states of Georgia, South Carolina and Florida.

Shipments of lumber represent 45.4% of the value of U.S. solid wood products exports into Italy (Figure 16). Logs, fuelwood and veneers account for 17%, 16% and 13%, respectively. Oak accounted for 38% of the value of lumber exports to Italy in 2019. Poplar and aspen represented 25%, whereas the value of those of pine and ash reached 16% and 6%, respectively.

Figure 16. Italy's solid wood products imports from the U.S., 2019 (top 5 commodities)







## CONCLUSIONS AND RECOMMENDATIONS

The EU remains a significant market for primary wood and paper products, as well as for wood furniture. The region has ample forest resources, and internal trade accounts for most of the wood transactions. Paper & paperboard products continue as the main drivers of the industry, closely followed by solid wood.

The upward trend of import of lumber, logs, doors, panels, wood pellets and other solid wood commodities persists uninterrupted, and non-EU countries, led by China, the U.S. and Brazil, account for almost a quarter of the region's import. Sales of U.S. solid wood products amount to \$1.6 billion in the EU, more than a third of the country's forest products export into the region.

Wood pellets and other forms of fuelwood are the main drivers of growth in this sector. The average shipping of U.S. lumber to the EU stays around \$312 million a year, and the top buyers are found in the U.K., Italy, Germany and Spain. The region's strongest demand for U.S. pine lumber comes from Italy, the U.K. and Spain. Efforts to market and promote American wood are active in the EU as the industry, trade associations and government agencies continue to deploy exhibits at top international woodworking shows, trade missions, technical workshops, seminars and publications.

A series of relevant trade events, business contacts and other resources have been listed in this document to help guide mills and others in the wood cluster in future export ventures. Please contact your state forestry agency, department of commerce and/or trade association for additional information and support.

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#### List of relevant trade shows

#### **France**

Carrefour International du Bois

Description: sawn timber, boards, parquet, specialized trade, and

timber construction solutions Dates: February 3-5, 2021 Location: Nantes, France

Website: www.timbershow.com/en/

#### Germany

BAU

Description: trade fair for architecture, materials and systems. Wood Hall: wood materials, interior work, stairs, timber

construction, facades systems, and veneers

Dates: January 11-16, 2021 Location: Munich, Germany Website: <u>bau-muenchen.com/en/</u>

Interzum

Description: furniture production and interior design

Dates: May 4-7, 2021 Location: Cologne, Germany Website: <u>www.interzum.com</u>

LIGNA

Description: trade fair for woodworking and wood processing

plant, machinery and tools Dates: May 10-14, 2021 Location: Hannover, Germany Website: www.ligna.de

#### Italy

**Xylexpo** 

Description: materials, machinery, accessories and tools for the construction, furniture, forestry, and woodworking industries

Dates: TBD 2022 Location: Milan, Italy Website: www.xylexpo.com

#### **United Kingdom**

Timber Expo

Description: the expo is designed for people who use, specify, design and build with timber. Timber Expo is part of U.K.

Construction Week Dates: October 6-8, 2020

Location: Birmingham, United Kingdom

Website: www.ukconstructionweek.com/Timber-Expo

#### Sweden

Wood Products and Technology

Description: forestry, sawmilling, production, furniture making and exporting to building in wood, research, and creating new

materials

Dates: August 8-11, 2021 Location: Gothenburg, Sweden Website: <u>en.traochteknik.se</u>

#### **Business contacts**

#### **American Hardwood Export Council (AHEC)**

Address (Europe Office): Unit 20.1 20-22 Vestry Street London N1

7RE

Telephone: +44 20 7626 411

Email: <a href="mailto:europe@americanhardwood.org">europe@americanhardwood.org</a> Website: <a href="mailto:www.americanhardwood.org">www.americanhardwood.org</a>

#### **Southern Forest Products Association (SFPA)**

Address: 6660 Riverside Dr., Suite 212. Metairie, LA 70003

Telephone: (504) 443-4464 Email: mail@sfpa.org Website: sfpa.org

#### **European Timber Trade Federation (ETTF)**

Address: Am Weidendamm 1A, D-10117 Berlin, Germany

Telephone: +49 (0) 30 7262 58 00

Email: goebel@ettf.info Website: www.ettf.info

#### **AEIM / Spanish Timber Trade Federation**

Address: Flora, 3. 2°. 28013 Madrid, Spain

Telephone: + 34 915479745 Email: <u>aeim@aeim.org</u> Website: www.aeim.org

#### Fedecomlegno (Italian national timber association)

Email: massimo.fiorini@fedecomlegnoarredo.it

Telephone: + 39 0280604568

Address: Foro Bonaparte 65 – 20121 – Milan, & Via Toscana 10 –

00187 - Rome, Italy

Website: www.fedecomlegno.it

#### **GD Holz / German Timber Trade Federation**

Address: Am Weidendamm 1A, D-10117 Berlin, Germany

Telephone: + 49 30 726 25 800 Email: <u>info@gdholz.de</u> Website: <u>www.gdholz.de</u>

#### **U.K. Timber Trade Federation**

Address: 26 Store Street. London WC1E 7BT

Telephone: 020 3205 0067 Email: ttf@ttf.co.uk Website: ttf.co.uk

#### Other resources

# U.S. Department of Agriculture: Animal and Plant Health Inspection Service, Plant Protection and Quarantine Phytosanitary Certification: aphis.usda.gov/aphis/ourfocus/

planthealth/SA Export

#### U.S. International Trade Administration

Services for U.S. Businesses: www.trade.gov

#### State Trade Expansion Program (STEP)

Financial awards to assist small businesses with export development. Directory: STEP Program (by State)



# PROGRAM: LANDSCAPE-SCALE RESTORATION

#### **Funding Agencies**

The US Department of Agriculture and US Forest Service

#### **Funding Year**

2016

#### Title

Mapping Path to Growth for U.S. Southeastern Forest Products







#### **Forest Service Region**

USDA Forest Service - Region 8

#### **Description**

The existence of adequate markets, local and international, to sell forest products is a key barrier to private non-industrial forest landowners exercising sound forest management on their land. Without adequate markets and a favorable return on their timber investment, landowners will not reinvest in establishing quality, well-stocked stands for future timber resources. Markets created through forest products industrial development and export development create jobs and reduce the trade deficit. The goal of this project is to develop current and new international markets for the Southern US forest resources by delivering a series of reports profiling the top international markets for forest products. Information presented in this marketing report is based on original research (interviews and site visits), as well as on secondary sources.

#### Goals

- 1. Assist the southeastern region of the U.S. in identifying opportunities to increase exports of forest products in current and new markets, which in turn will help the industry grow and create new jobs. Through this project, companies, government agencies and trade associations will have access to valuable marketing intelligence, relevant in developing new businesses, customers, products and services.
- 2. Raise the industry's awareness of key aspects involved in international trade: such as logistics, financing, environmental certifications, as well as providing insights on wellestablished and emerging markets.

# SC MARKETING

This study was conducted by the Resource Development Division at the South Carolina Forestry Commission, in partnership with participating agencies at the Southern Group of State Foresters: Florida Forest Service, VA Department of Forestry, GA Forestry Commission, KY Division of Forestry, NC Forest Service, TN Dept of Ag. - Div. of Forestry.



